

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30				1. REQUISITION NUMBER 474-47-7329-7161		PAGE 1 OF 11	
2. CONTRACT NO.		3. AWARD/EFFECTIVE DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER N00164-98-R-0029	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME MILLIE STRAWN		b. TELEPHONE NUMBER (No collect calls) (812) 854-3733		6. SOLICITATION ISSUE DATE 28 APR 98	
9. ISSUED BY Contracting Officer Naval Surface Warfare Center Crane Division Code 1164EE 300 Highway 361 Crane, IN 47522-5001		CODE N00164		10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SET ASIDE: % FOR <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISAV. BUSINESS <input type="checkbox"/> 8(A) SIC: 3541 SIZE STANDARD: 500		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING 14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP	
15. DELIVER TO Receiving Officer, Naval Surface Warfare Center Code 1121, Bldg. 41SE, 300 Highway 361, Crane, IN 47522-5001		CODE N00164		16. ADMINISTERED BY		CODE N00164	
17a. CONTRACTOR/OFFEROR		CODE		18a. PAYMENT WILL BE MADE BY		CODE	
TELEPHONE NO.		FACILITY CODE		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER							
19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
0001	REQN. NO. 474-47-7329-7161 Waterjet Cutting System in accordance NSWC Crane specification found as Attachment (1). <i>(Attach Additional Sheets as Necessary)</i>			1	EA		
25. ACCOUNTING AND APPROPRIATION DATA				26. TOTAL AWARD AMOUNT (For Govt. Use Only)			
27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED.				27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR IS ATTACHED. ADDENDA			
28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES				29. AWARD OF CONTRACT: REFERENCE OFFER			
<input type="checkbox"/> TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.				<input type="checkbox"/> DATED . YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER		31c. DATE SIGNED	
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED				33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		34. VOUCHER NUMBER	
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE		32c. DATE		36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		35. AMOUNT VERIFIED CORRECT FOR	
				38. S/R ACCOUNT NUMBER		37. CHECK NUMBER	
				39. S/R VOUCHER NUMBER		40. PAID BY	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				42a. RECEIVED BY (Print)			
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE		42b. RECEIVED AT (Location)			
				42c. DATE REC'D (YY/MM/DD)		42d. TOTAL CONTAINERS	
AUTHORIZED FOR LOCAL REPRODUCTION				SEE REVERSE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT			
STANDARD FORM 1449 (10-95) Prescribed by GSA - FAR (48 CFR) 53.212							

## SCHEDULE OF SUPPLIES

Note: List your Commercial and Government (CAGE) Code and Contractor Establishment Code in Block 17 of Page 1.

It is requested that technical questions concerning this procurement be submitted, **in writing**, at least seven calendar days preceding the solicitation's closing date to: e-mail [strawn\\_m@crane.navy.mil](mailto:strawn_m@crane.navy.mil).

**SPECIAL NOTICE** - The Director, Defense Procurement is proposing to revise the DFARS to require contractors to be registered in the Central Contractor Registration (CCR) as a condition for receipt of contract award. *The effective date would be 31 March 1998.* Exceptions to this proposal include purchases made with the Government-wide commercial purchase card, contracting officers located outside the United States, classified contracts and contracts executed to support contingency or emergency operations. Contractors may register with the CCR on World Wide Web at <http://www.acq.osd.mil/ec> or via dial up modem at **614-692-6788** (user ID: ccrpub; password: pub2ccr1). A paper form for registration may be requested from the DoD Electronic Commerce Information Center at **1-800-334-3414**.

### **EXPEDITING CONTRACT CLOSEOUT (NAVSEA) (DEC 1995)**

(a) As part of the negotiated fixed price or total estimated amount of this contract, both the Government and the Contractor have agreed to waive any entitlement that otherwise might accrue to either party in any residual dollar amount of \$500 or less at the time of final contract closeout. The term "residual dollar amount" shall include all money that would otherwise be owed to either part at the end of the contract except that, amounts connected in any way with taxation, allegations of fraud and/or antitrust violations shall be excluded. For purposes of determining residual dollar amounts, offsets of money owed by one party against money that would otherwise be paid by that party may be considered to the extent permitted by law.

(b) This agreement to waive entitlement to residual dollar amounts has been considered by both parties. It is agreed that the administrative costs for either part associated with collected such small dollar amounts could exceed the amount to be recovered.

### **CONTRACT CLAUSES IN ACCORDANCE WITH FAR SUBPARAGRAPH 12.303(c)**

#### **Contract Terms & Conditions--Commercial Items (Apr 1998) (FAR 52.212-4)**

#### **TIME OF DELIVERY**

Delivery and installation of the complete system shall be completed within 98 days from effective date of the contract.

#### **PLACE OF DELIVERY**

The material to be furnished hereunder shall be delivered FOB destination with all transportation charges paid by the supplier to: RECEIVING OFFICER, BLDG 41S CODE 1121, NAVSURFWARCENDIV Crane, CRANE, IN 47522-5001, Mark For: Code 4074, Attn: Kerry Libbert.

#### **FINAL INSPECTION AND ACCEPTANCE**

Inspection and acceptance shall be at destination by a Government representative within seven calendar days following installation and checkout by the contractor.

#### **CONTRACTOR INVOICING INSTRUCTION**

**The contractor is to submit one original and four copies of the invoice to: Receiving Officer, Naval Surface Warfare Center, Code 1121A, Bldg. 41SE, 300 Highway 361, Crane, IN 47522-5001.**

WARRANTY NOTIFICATION FOR ITEM(S) 0001 (NAVSEA) (NOV 1996)

The Contractor shall apply a permanent warranty notification stamping or marking on each warranted deliverable end item and its container. The notification shall be placed in close proximity to other required stamping or markings so as to be easily readable by personnel. The warranty notification shall read:

THIS ITEM WARRANTED UNDER CONTRACT N00164-\_\_\_\_\_ TO CONFORM TO DESIGN, MANUFACTURING, AND PERFORMANCE REQUIREMENTS AND BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR \_\_\_\_\_ FROM DATE OF ACCEPTANCE. IF ITEM IS DEFECTIVE NOTIFY AND PCO.

#### **YEAR 2000 WARRANTY--COMMERCIAL SUPPLY ITEMS (NAVSEA) (NOV 1996)**

The Contractor warrants that each hardware, software, and firmware product delivered under this contract and listed below shall be able to accurately process date data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, including leap year calculations, when used in accordance with the product documentation provided by the Contractor, provided that all listed or unlisted products (e.g., hardware, software, firmware) used in combination with such listed product properly exchange date data with it. If the contract requires that specific listed products must perform as a system in accordance with the foregoing warranty, then that warranty shall apply to those listed products as a system. The duration of this warranty and the remedies available to the Government for breach of this warranty shall be as defined in, and subject to, the terms and limitations of the Contractor's standard commercial warranty or warranties contained in this contract, provided that notwithstanding any provision to the contrary in such commercial warranty or warranties, the remedies available to the Government under this warranty shall include repair or replacement of any listed product whose non-compliance is discovered and made known to the Contractor in writing within ninety (90) days after acceptance. Nothing in this warranty shall be construed to limit any rights or remedies the Government may otherwise have under this contract with respect to defects other than Year 2000 performance.

#### **CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (APR 1998) (FAR 52.212-5)**

(a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

- (1) 52.222-3, Convict Labor (E.O. 11755); and
- (2) 52.233-3, Protest After Award (31 U.S.C. 3553)

(b) The Contractor agrees to comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

- (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2404).

(2) 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (15 U.S.C. 637(d)(2) and (3));

(3) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C. 637(d)(4));

(4) 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14));

(5) 52.222-26, Equal Opportunity (E.O. 11246);

(6) 52.222-35, Affirmative Action for Disabled and Vietnam Era Veterans (38 U.S.C. 4212);

(7) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 739);

(8) 52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212);

(9) 52.225-3, Buy American Act--Supplies (41 U.S.C. 10);

(10) 52.225-9, Buy American Act--Trade Agreements Act--Balance of Payments Program (41 U.S.C. 10, 19 U.S.C. 2501-2582);

(11) 52.225-21, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program (41 U.S.C. 10, Pub. L. 103-187);

(15) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a)

(16) 52.247-64, Preference for Privately Owned U.S. Flag Commercial Vessels (46 U.S.C. 1241);

(c) The Contractor agrees to comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

(1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, *et seq.*);

(2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*);

(3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and

Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*);

(4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*);

(5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA)(41 U.S.C. 351, *et seq.*).

(d) *Comptroller General Examination of Record.* The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--

- (1) 52.222-26, Equal Opportunity (E.O. 11246);
- (2) 52.222-35, Affirmative Action for Disabled and Vietnam Era Veterans (38 U.S.C. 2012(a)); and
- (3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793); and
- (4) 52.247-64, Preference for Privately-Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241)(flow down not required for subcontracts awarded beginning May 1, 1996).

**Contract Terms & Conditions Required to Implement Statutes or Executive Orders Applicable to Defense Acquisitions of Commercial Items (JUL 1997) (DFARS 252.212-7001)**

(a) The Contractor agrees to comply with the Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.247-7023, Transportation of Supplies by Sea, which is included in this contract by reference to implement 10 U.S.C. 2631.

(b) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law or Executive Orders applicable to acquisitions of commercial items or components.

252.205-7000 Provision of Information to Cooperative Agreement Holders (10 U.S.C. 2416)  
 252.225-7012 Preference for Certain Domestic Commodities  
 252.227-7015 Technical Data--Commercial Items (10 U.S.C. 2320)  
 252.227-7037 Validation of Restrictive Markings on Technical Data (10 U.S.C. 2321)  
 252.233-7000 Certification of Claims and Requests for Adjustment or Relief (10 U.S.C. 2410)  
 252.243-7002 Certification of Requests for Equitable Adjustment (10 U.S.C. 2410)  
 252.247-7024 Notification of Transportation of Supplies by Sea (10 U.S.C. 2631)  
 252.249-7001 Notification of Substantial Impact on Employment (10 U.S.C. 2501 note)

Gratuities (Apr 1984)

FAR 52.203-03

Requirement for Cost or Information Other than Cost or Pricing Data--(Oct 1997)

FAR 52.215-20

Requirement for Cost or Information Other than Cost or Pricing Data--Modifications (Oct 1997)

FAR 52.215-21

Toxic Chemical Release Reporting (Oct 1996)

FAR 52.223-14

Restrictions on Certain Foreign Purchases (Oct 1996)

FAR 52.225-11

Terms For Financing of Purchases of Commercial Items (Oct 1995)

FAR 52.232-29

**PROVISIONS SECTION IN ACCORDANCE WITH FAR 12.303(e)**

Instructions to Offerors -- Commercial Items (Oct 1995)  
 52.212-1

FAR

## PAST PERFORMANCE

The Government will assess the offeror's past performance in the evaluation for contract award. Accordingly, each offeror is required to submit a list of its five most recent contracts for the same or similar items. It is preferred that these contracts be with U.S. government customers, but contracts with other commercial concerns are also acceptable. **Offerors are authorized to provide information relative to any problems encountered on the identified contracts and any**

**corrective actions taken by the offeror.** The Contracting Officer will evaluate the offeror's past performance; based upon the information furnished by the offeror, or other information obtained by the Contracting Officer. The Contracting Officer is not responsible for locating or securing any information not identified in the offer. The Contracting Officer may, however, utilize all available information, including information not provided by the offeror, in the past performance evaluation.

Past performance is assessed by the Contracting Officer and is assigned a narrative rating in the evaluation. Each offeror will be given an adjectival rating on past performance: highly favorable, favorable, unfavorable, or highly unfavorable. Offerors who do not have same or similar past performance information reasonably available to the Contracting Officer will be rated neither favorably nor unfavorably.

Offerors without corporate past performance history are encouraged to submit past performance information, or key personnel data, previous subcontracting experience, etc. for the Government to evaluate.

In the event there are substantial differences among the offerors in terms of past performance, the Government reserves the right to award to other than the lowest priced offer in favor of an offeror with substantially better performance history.

In addition, the Government may accept other than the lowest priced offer if doing so would result in greater value to the Government in terms of technical performance, quality, reliability, life cycle cost, or lower overall program risk. As a part of the past performance evaluation, the Government will assess the offeror's previous compliance with the requirements of FAR 52.219-8 and 52.219-9 as applicable. Small disadvantaged business concerns may receive evaluation preference as provided elsewhere in this solicitation.

## CONTRACTOR PERFORMANCE DATA

The offeror shall demonstrate past performance through completion of the "Contractor Performance Data Sheet". The Contractor Performance Data Sheet shall be completed in its entirety. List performance data on your five most recently completed federal government contracts (not to exceed three years since completion) for like or similar items under this Request for Proposal. (If you do not have five Federal Government contracts, then list state, local, or commercial contracts, in that order, to complete this report.) The information provided may be used to evaluate the offeror's past performance in meeting costs/price, technical, and delivery objectives. Points of contact provided may be contacted to confirm information provided and to gather information on technical performance, quality, life cycle cost and/or reliability. The results may be used in the overall comparative evaluation of the offeror(s) in accordance with section m of the request for proposal. Failure to submit the completed Contractor Performance Data Sheet (along with the proposal) shall be considered certification (by signature on the proposal) that the contractor has no past performance for like or similar items for the Government to evaluate.

### Contractor Performance Data Sheet

1) Customer Name: \_\_\_\_\_ RFP #:

Division: \_\_\_\_\_ Telephone: \_\_\_\_\_  
Address: \_\_\_\_\_ POC: (Person who can verify data)  
FAX: \_\_\_\_\_

**CONTRACT INFORMATION**

Contract Number: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Contract Type: Fixed Price \_\_\_\_ Cost Reimbursement \_\_\_\_ Other (Specify) \_\_\_\_

Item Description: \_\_\_\_\_

Contract Quantity/Period of Performance: \_\_\_\_\_

2) Customer Name: \_\_\_\_\_ RFP #: \_\_\_\_\_

Division: \_\_\_\_\_ Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ POC: (Person who can verify data)

FAX: \_\_\_\_\_

**CONTRACT INFORMATION**

Contract Number: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Contract Type: Fixed Price \_\_\_\_ Cost Reimbursement \_\_\_\_ Other (Specify) \_\_\_\_

Item Description: \_\_\_\_\_

Contract Quantity/Period of Performance: \_\_\_\_\_

3) Customer Name: \_\_\_\_\_ RFP #: \_\_\_\_\_

Division: \_\_\_\_\_ Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ POC: (Person who can verify data)

FAX: \_\_\_\_\_

**CONTRACT INFORMATION**

Contract Number: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Contract Type: Fixed Price \_\_\_\_ Cost Reimbursement \_\_\_\_ Other (Specify) \_\_\_\_

Item Description: \_\_\_\_\_

Contract Quantity/Period of Performance: \_\_\_\_\_

4) Customer Name: \_\_\_\_\_ RFP #: \_\_\_\_\_

Division: \_\_\_\_\_ Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ POC: (Person who can verify data)

FAX: \_\_\_\_\_

**CONTRACT INFORMATION**

Contract Number: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Contract Type: Fixed Price \_\_\_\_ Cost Reimbursement \_\_\_\_ Other (Specify) \_\_\_\_

Item Description: \_\_\_\_\_

Contract Quantity/Period of Performance: \_\_\_\_\_

5) Customer Name: \_\_\_\_\_ RFP #: \_\_\_\_\_

Division: \_\_\_\_\_ Telephone: \_\_\_\_\_

Address: \_\_\_\_\_ POC: (Person who can verify data)

FAX: \_\_\_\_\_

**CONTRACT INFORMATION**

Contract Number: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Contract Type: Fixed Price \_\_\_\_ Cost Reimbursement \_\_\_\_ Other (Specify) \_\_\_\_

Item Description: \_\_\_\_\_

Contract Quantity/Period of Performance: \_\_\_\_\_

**OFFEROR REPRESENTATIONS AND CERTIFICATIONS COMMERCIAL ITEMS (JAN 1997)  
(FAR 52.212-3)**

(a) *Definitions.* As used in this provision: *Emerging Small Business* means a small business concern whose size is no greater than 50 percent of the numerical size standard for the standard industrial classification code designated.

*Small Business concern* means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

*Small disadvantaged business concern* means a small business that --(1) Is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business, having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals,

and (2) Has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian organization and which meets the requirements of 13 CFR Part 124.

*Women-owned small business concern* means a small business concern --(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and (2) Whose management and daily business operations are controlled by one or more women.

*Women-owned business concern* means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) *Taxpayer Identification number (TIN)* (26 U.S.C. 6050M). (1) Taxpayer Identification Number (TIN).

☐ ☐ TIN: \_\_\_\_\_.

☐ ☐ TIN has been applied for.

☐ ☐ TIN is not required because:

☐ ☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U. S. and does not have an office or place of business or a fiscal paying agent in the U. S.;

☐ ☐ Offeror is an agency or instrumentality of a foreign government;

☐ ☐ Offeror is an agency or instrumentality of a Federal, state, or local government;

☐ ☐ Other. State Basis.

(2) Corporate Status.

☐ ☐ Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;

☐ ☐ Other corporate entity;

☐ ☐ Not a corporate entity;

☐ ☐ Sole proprietorship

☐ ☐ Partnership

☐ ☐ Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(3) Common Parent.

☐ ☐ Offeror is not owned or controlled by a common parent.

Name and TIN of common parent:

Name

TIN



(c) Offerors must complete the following representations when the resulting contract to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply.

(1) *Small business concern.* The offeror represents as part of its offer that it /\_\_\_/ is, /\_\_\_/ is not a small business concern.

(2) *Small disadvantaged business concern.* The offeror represents that it /\_\_\_/ is, /\_\_\_/ is not a small disadvantaged business concern.

(3) *Women-owned small business concern.* The offeror represents that it /\_\_\_/ is, /\_\_\_/ is not a women-owned small business concern.

**Note:** Complete paragraphs (c)(4) and (c)(5) only if this solicitation is expected to exceed the simplified acquisition threshold.

(4) *Women-owned business concern.* The offeror represents that it /\_\_\_/ is, /\_\_\_/ is not, a women-owned business concern.

(5) *Tie bid priority for labor surplus area concerns.* If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

(6) *Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program.*

(Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.)

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it /\_\_\_/ is, /\_\_\_/ is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIG's).) Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size

standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

	<i>Number of Employees</i>	<i>Average Annual Gross</i>
<i>Revenues</i>		
___ 50 or fewer		___ \$1 million or less
___ 51-100		___ \$1,000,001-\$2
million		
___ 101-250		___ \$2,000,001-\$3.5
million		
	<i>Number of Employees</i>	<i>Average Annual Gross</i>
<i>Revenues</i>		
___ 251-500		___ \$3,500,001-\$5
million		
___ 501-750		___ \$5,000,001-\$10
million		

million	___ 751-1,000	___ \$10,000,001-\$17
	___ Over 1,000	___ Over \$17 million

(d) Certifications and representations required, to implement provisions of Executive Order 11246 --

(1) *Certifications of non-segregated facilities.*

By submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees, any facilities that are segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise and that it does not and will not permit its employees to perform their services at any location where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(2) *Previous Contracts and Compliance.*

The offeror represents that --

(i) It /\_\_\_/ has, /\_\_\_/ has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order 10925, or the clause contained in Section 201 of Executive Order 11114; and

(ii) It /\_\_\_/ has, /\_\_\_/ has not, filed all required compliance reports.

(3) *Affirmative Action Compliance.*

The offeror represents that --

(i) It /\_\_\_/ has developed and has on file, /\_\_\_/ has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It /\_\_\_/ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(c) *Certification Regarding Payments to Influence Federal Transactions (31 U. S. C. 1352).* (Applies only if

the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) *Buy American Act - Trade Agreements - Balance of Payments Program Certificate.*

(Applies only if FAR clause 52.225-9, Buy American Act--Trade Agreement--Balance of Payments Program, is included in this solicitation.)

(1) The offeror hereby certifies that each end product, except those listed in paragraph

(f)(2) of this provision, is a domestic end product (as defined in the clause entitled "Buy American Act--Trade Agreements Balance of Payments Program") and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States, a designated country, a North American Free Trade

Agreement (NAFTA) country, or a Caribbean Basin country, as defined in section 25.401 of the Federal Acquisition Regulation.

(2) *Excluded End Products:*

Line Item No.

Country of origin

\_\_\_\_\_  
\_\_\_\_\_

(List as necessary)

(3) Offers will be evaluated by giving certain preferences to domestic end products, designated country end

products, NAFTA country end products, and Caribbean Basin country end products over other end products.

- (4) In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (f)(2) of

this provision, offerors must identify and certify below those excluded end products that are designated or NAFTA country end products, or Caribbean Basin country end products. Products that are not identified and certified below will not be deemed designated country end products.

Offerors must certify by inserting the applicable line item numbers in the following:

- (i) The offeror certifies that the following supplies qualify as "designated or NAFTA country end products" as those terms are defined in the clause entitled "Buy American Act--Trade Agreements--Balance of Payments Program:"

(Insert line item numbers)

- (ii) The offeror certifies that the following supplies qualify as "Caribbean Basin country end products" as that term is defined in the clause entitled "Buy American Act--Trade Agreements--Balance of Payments Program":

(Insert line item numbers)

- (4) Offers will be evaluated in accordance with FAR Part 25.

(g)(1) *Buy American Act--North American Free Trade Agreement (NAFTA) Implementation Act--Balance of Payments Program Certificate*. (Applies only if FAR clause 52.225-21, Buy American Act--North American Free Trade Agreement (NAFTA) Implementation Act--Balance of Payments Program, is included in this solicitation.)

- (i) The offeror certifies that each end product being offered, except those listed in paragraph (g)(1)(ii) of this provision, is a domestic end product (as defined in the clause entitled "Buy American Act--North American Free Trade Agreement (NAFTA) Implementation Act--Balance of Payments Program."

Components of unknown origin have been

- (ii) considered to have been mined, produced, or manufactured outside the United States.

- (ii) Excluded End Products:

Line item No.

Country of origin

\_\_\_\_\_

(List as necessary)

- (iii) Offers will be evaluated by giving certain preferences to domestic end products or NAFTA country end products over other end products. In order to obtain these preferences in the evaluation of each excluded end product listed in paragraph (g)(1)(ii) of this provision, offerors must identify and certify below those excluded end products that are NAFTA country end products. Products that are not identified and certified below will not be deemed NAFTA country end products. The offeror certifies that the following supplies qualify as NAFTA country end products" as that term is defined in the

clause entitled "Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program:"

(Insert line item numbers)

(iv) Offers will be evaluated in accordance with FAR Part 25 of the Federal Acquisition Regulation. In addition, if this solicitation is for supplies for use outside the United States, an evaluation factor of 50 percent will be applied to offers of end products that are not domestic or NAFTA country products.

(h) *Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549)*. The offeror certifies, to the best of its knowledge and belief, that--

(1) The offeror and/or any of its principals /\_/ are, /\_/ are not presently debarred, suspended, proposed for

debarment, or declared ineligible for the award of contracts by any Federal agency, and

(2) /\_/ Have, /\_/ have not, within a three-year period preceding this offer, been convicted of or had a civil judgement rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and /\_/ are, /\_/ are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with commission of any of these offenses.

(i) *Procurement Integrity Certification (41 U.S.C. 423)*. (Applies only if the contract is expected to exceed \$100,000)

I, the undersigned, am the officer or employee responsible for the preparation of this offer. I certify, to the best of my knowledge and belief, that either--

/\_/ I have no information, or

/\_/ I have disclosed information to the Contracting Officer concerning a violation or possible violation of subsection (a),

(b), (d) or (f) of 41 U.S.C. 423, Procurement Integrity, or its implementing regulations that may have occurred during the conduct of this procurement.

Signature of the Officer or employee responsible for the offer and date.

**OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (DFARS 252.212-7000) (FEB 1997)**

**(a) Definitions.**

As used in this clause--

(1) *Foreign person* means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec. 2415).

(2) *United States person* is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concern, as determined under regulations of the President.

**(b) Certifications.**

By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec. 2407(a) prohibits a United States person from taking.

(c) *Representation of extent of Transportation by Sea.* (This representation does not apply to solicitations for the direct purchase of ocean transportation services).

(1) The Offeror shall indicate by checking the appropriate blank in paragraph (c)(2) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term "supplies" is defined in the Transportation of Supplies by Sea clause of this solicitation.

(2) *Representation.*

The offeror represents that it--

\_\_\_\_\_ Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

\_\_\_\_\_ Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(3) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense Federal Acquisition Regulation Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

**BUY AMERICAN ACT - TRADE AGREEMENTS - BALANCE OF PAYMENTS PROGRAM  
CERTIFICATE (MAR 1998) (DFARS 252.225-7006)**

(a) *Definitions.*

"Caribbean Basin country end product," "designated country end product," "domestic end product," "NAFTA country end product," "nondesignated country end product," "qualifying country end product," and "U.S. made end product" have the meanings given in the Trade Agreements or Buy American Act and Balance of Payments Program clauses of this solicitation.

(b) *Evaluation.*

Offers will be evaluated in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement. Offers of foreign end products that are not U.S. made, qualifying country, designated country, Caribbean Basin country, or NAFTA country end products will not be considered for award, unless the Contracting Officer determines that there are no offers of such end products; or the offers of such end products are insufficient to fulfill the requirements; or a national interest exception to the Trade Agreements Act is granted.

(c) *Certifications.*

(1) The Offeror certifies that--

(i) Each end product, except the end products listed in paragraph (c)(2) of this provision, is a domestic end product; and

(2) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror must identify all end products that are not domestic end products.

(i) The Offeror certifies that the following supplies qualify as "U.S. made end products" but do not meet the definition of "domestic end product":

\_\_\_\_\_ (insert line item number)

(ii) The Offeror certifies that the following supplies are qualifying country end products:

\_\_\_\_\_ (insert line item number) \_\_\_\_\_ (insert country of origin)

(iii) The Offeror certifies that the following supplies qualify as designated country end products:

\_\_\_\_\_ (insert line item number) \_\_\_\_\_ (insert country of origin)

(iv) The Offeror certifies that the following supplies qualify as Caribbean Basin country end products:

\_\_\_\_\_ (insert line item number) \_\_\_\_\_ (insert country of origin)

(v) The Offeror certifies that the following supplies qualify as NAFTA country end products:

<u>          (insert line item number)          </u>	<u>          (insert country of origin)          </u>
(vi) The following supplies are other nondesignated country end products.	
<u>          (insert line item number)          </u>	<u>          (insert country of origin)          </u>

**EXHIBITS/ATTACHMENTS SECTION IN ACCORDANCE WITH FAR 12.303(d)**

Attachment (1): NSWC Crane Specification for a Waterjet Cutting System

WATERJET CUTTING SYSTEM SPECIFICATION

1. SCOPE. The equipment furnished shall be a CNC controlled waterjet cutting system capable of cutting plastic materials in five independent axes.

2. APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

TITLE 29 OF THE CODE OF FEDERAL REGULATIONS (29 CFR),  
CHAPTER XVII, PART 1910 - Occupational Safety and  
Health Standards

(Application for copies should be addressed to:  
Superintendent of Documents, Government Printing  
Office, Washington, DC 20402)

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

ASME-B1.1 Unified Inch Screw Threads (Un and UNR  
Thread Form)

(Applications for copies should be addressed to:  
American Society of Mechanical Engineers,  
345 E. 47<sup>th</sup> St., New York, NY 10017-2392)

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

NEMA ICS1 Industrial Control and Systems: General  
Requirements

(Applications for copies should be addressed to:  
National Electrical Manufacturers Association,  
1300 North 17<sup>th</sup> St., Suite 1847, Rosslyn, VA 22209)

NATIONAL FIRE PROTECTION ASSOCIATION

Electrical Standards for Industrial Machinery  
NFPA #79

(Application for copies should be addressed to:  
National Fire Protection Association, 470 Atlantic  
Ave., Boston, MA 02219)

## SOCIETY OF AUTOMOTIVE ENGINEERS

SAE AE-15 Gear Design- Manufacturing and Inspection  
Manual

(Application for copies should be addressed to:  
Society of Automotive Engineers, 400 Commonwealth  
Drive, Warrendale, PA 15096-0001)

## 3. REQUIREMENTS

3.1 DESIGN - The equipment shall be new and unused, capable of performing its intended function in accordance with the operation and performance requirements specified herein. The equipment shall be complete, so that when connected to the utilities identified herein, it can be used for any function for which it is designed and constructed.

The equipment shall be one of the manufacturer's current field proven designs, representative of equipment whose design, capacity and performance characteristics, having been proven through actual field application, are substantially the same as those required of the equipment specified herein.

3.1.1 SAFETY AND HEALTH REQUIREMENTS - Covers, guards, or other safety devices shall be provided for all parts of the equipment that present safety hazards. The safety devices shall not interfere with operation of the equipment. The safety devices shall prevent unintentional contact with the guarded part, and shall be removable to facilitate inspection, maintenance and repair of the parts. All machine parts, components, mechanisms, and assemblies furnished on the unit shall comply with all specific requirements of OSHA Safety and Health Standards (29 CFR 1910) General Industry that are applicable to the equipment itself. Additional safety and health requirements shall be as specified in other paragraphs of the specification.

3.1.1.1 CONTROLS - All operating controls shall be located convenient to the operator at the normal work station.

3.1.2 USE OF MERCURY - The equipment shall neither contain mercury or mercury compounds, nor be exposed to free mercury during manufacture.

3.1.3 USE OF ASBESTOS - The use of asbestos and materials containing asbestos on or in the furnished equipment is prohibited.

3.1.4 ENVIRONMENTAL PROTECTION - The equipment shall be designed and constructed so that under the operating service, transportation and storage conditions described herein, the equipment shall not emit materials hazardous to the ecological



system as prescribed by federal, state or local statutes in effect at point of installation.

3.1.5 LUBRICATION - All bearings (except sealed for life and self lubricating type), mating gears and sliding parts shall be provided with means for lubrication. The reservoirs of splash type systems shall be fitted with oil level sight gages. Automatic force feed and manually operated force feed systems shall be supplied with a filter. Manually operated systems shall have control handles mounted in an accessible location convenient to the operator. All oil holes, grease fittings and filler caps shall be easily accessible.

#### 3.1.6 ELECTRICAL DESIGN

3.1.6.1 ELECTRICAL EQUIPMENT - All electrical components including motors, starters, relays, switches, and wiring shall conform to and be located in accordance with applicable NEMA and NFPA standards for the intended application.

3.1.6.2 ELECTRIC POWER DISCONNECT - A supply circuit disconnect device, either a fusible motor circuit switch or circuit breaker shall be provided and installed on the equipment.

3.1.6.3 MOTORS - Motors shall be rated for continuous duty.

3.1.6.4 CONTROL CIRCUITS - Main and auxiliary control circuits shall operate on a circuit of 115 Volts or less derived from isolation transformers(s) integral with the equipment.

3.1.6.5 ELECTRICAL CONNECTIONS - All electrical connections within the equipment shall be complete and shall be made via terminals on the components, terminal/circuit boards and bussing. In no instance shall splicing of wiring between terminations be permitted in the construction nor the repair of the equipment. Connections/terminals shall be adequately supported and spaced without dependence upon the wiring in the components and braced as necessary to assure withstanding the distortion forces associated with available short circuit currents.

Proper identification of wiring, bussing, terminals, and circuits for function, polarity, phasing, etc., shall be adhered to throughout the equipment. Identification shall be in the form of wire markers, color coding, permanently engraved plates, and permanent markings on the devices.

Adequate spacing shall be maintained throughout to avoid excessive bending of cabling and wiring, to maintain adequate separation and creep distance between electrical potentials and between these potentials and ground, and to permit ease in connecting and disconnecting wiring and cabling during trouble-shooting and repair. In no instance shall clearance and creep distances be less than those prescribed under NEMA ICS1.

3.1.6.6 GROUNDING - All exposed, non-current carrying metal parts on the equipment shall be maintained at common, zero ground

potential. None of the primary circuits in the equipment shall be connected to ground. A ground stud or lug on the equipment shall provide the means for grounding the equipment for safety to personnel.

For cord connected equipment, a NEMA type grounding plug which effectively grounds the equipment for the safety of personnel shall be acceptable in lieu of a ground stud or lug on the equipment.

3.1.6.7 SOLID STATE COMPONENTS - Solid state design shall be employed throughout for electronic components. The use of selenium and other similar aging devices shall be permitted only in the application of voltage surge protection to the other solid state components. Each solid state device shall be selected and installed to have characteristics and withstand ratings compatible with its intended function and application in assuring long life and reliability. Solid state components shall not be adversely affected when subjected to radiated and conducted power line transients and surges typically experienced in a production type, industrial environment. Series and parallel connections of solid state devices without forced sharing circuitry for voltage and current respectively shall not be permitted.

3.1.7 NEW DEVELOPMENTS - If during the contract period, any new developments are generated that would improve the efficiency, accuracy or productivity of the machine and its related equipment or would decrease its operating costs, the contractor shall immediately notify the contracting officer, in order that the new developments may, at the Government's option, be included in the equipment being manufactured hereunder. All reports of such developments shall be addressed to the Contracting Officer.

3.1.8 INTERCHANGEABILITY - All replaceable parts shall be manufactured to definite standards, tolerances and clearances in order that any such parts of a particular type or model can be replaced or adjusted without modification of the equipment.

3.1.9 MAINTAINABILITY - The equipment shall be designed and constructed to permit maintenance personnel to easily and effectively service the equipment using a minimal number of tools. Consistent with required maintenance and design of the equipment, the contractor shall provide any special tools required to service the unit. Additionally, the equipment shall be equipped with access covers to facilitate inspection, cleaning and repair or replacement of parts.

3.2 CONSTRUCTION - The equipment shall be constructed of parts which are new, without defects and free of repair. The equipment shall be complete so that when connected to the specified utilities, it can be used for any operation for which it is being purchased. The equipment shall be devoid of any defects or characteristics that will preclude conformance with any of the requirements under paragraph 3, and inspections and tests under paragraph 4.

3.2.1 CASTINGS AND FORGINGS - All castings and forgings shall be free from defects, scale and mismatching. Processes such as welding, peening, plugging, or filling with cold solders or metallic pastes shall not be used on castings or forgings for reclaiming any parts of the equipment.

3.2.2 WELDING, BRAZING, OR, SOLDERING - Welding, brazing or soldering shall be employed only where those operations are included in fabrication of the original design. These operations shall not be employed as repair measures for defective parts.

3.2.2.1 SOLDERING - Solder connections shall show evidence of good bonding in metal-to-metal contact. Cold solder joints, incomplete joining of solder and metal, excess or insufficient solder or damaged insulation shall be considered sufficient reason for rejection of the equipment.

3.2.2.1.1 CLEANING - Any loose, spattered solder, flux, metal chips, insulation scrap or other foreign material shall be thoroughly removed from the equipment.

3.2.2.1.2 FLUX AND CLEANING AGENTS - Flux for soldering shall be rosin or rosin and alcohol. No acid salts or acid core solder shall be used in preparation for soldering of electrical connections.

3.2.3 FASTENING DEVICES - All screws, pins, bolts, and similar internal and external parts shall be installed with means for preventing change of tightness. Such parts subject to removal or adjustment shall not be swaged, peened, staked, or otherwise permanently installed. All fastening devices shall be tightened to torque limits as established by the manufacturer's standard for tightening to preclude loosening by normal operation or vibration.

3.2.4 EQUIPMENT FASTENING - Floor and deck mounted equipment shall be provided with adequate holes in feet, lugs, etc., to permit fastening to foundation or deck pads.

3.2.5 SURFACES - All surfaces of castings, forgings, molded parts, stampings and welded parts shall be cleaned and free from sand, dirt, fins, sprues, flux or other harmful or extraneous materials. External surfaces shall be smooth, and all edges shall be either rounded or beveled unless sharpness is required to perform a function.

3.2.6 PAINTING - The equipment shall be properly painted: painting may be the manufacturer's standard practice if it results in a highly wear-resistant finish which guarantees continued protection to the surfaces covered against the specified environment under all service conditions. Prior to painting, surfaces shall be properly prepared and primed. Manufacturer's standard color shall be provided.

3.2.7 THREADS - All threaded parts shall conform to ASME-B1.1.

3.2.8 GEARS - The gears used in the machine and its components shall be machined in either the inch or metric system. All gears shall meet the requirements of SAE AE-15.

3.2.9 DIALS - Dial graduations shall represent not more than .01 movements. Graduation, permanently displayed on a contrasting, non-glare surface, shall be legible from the operator's normal work position. All dials shall be provided with positive retention means to assure maintenance of the dials or dials at the desired setting. Dials shall be english or english and metric combination.

3.2.10 DIGITAL READOUTS - All digital readouts shall display data in illuminated figures clearly legible at a distance of 10 feet and that give direct horizontal readings without requiring any calculation or interpolation. Each digit of the readout display shall be of the in-line type.

3.2.11 VENTILATION AND COOLING- The equipment shall be adequately cooled or ventilated to preclude premature deterioration of the equipment or any component thereof when utilized under the ambient and operating conditions specified herein.

3.2.12 FERROUS PARTS - All exposed ferrous parts such as screws, bolts, nuts, washers, etc., shall be plated, passivated, galvanized or otherwise surface protected by an electrical or chemical process or stainless steel to resist corrosion in a high humidity, variable temperature atmosphere.

3.2.13 DISSIMILAR METALS - Dissimilar metals shall not be used in direct contact with each other without suitable means for preventing electrolytic corrosion.

3.2.14 CONTROL PANEL, INSTRUMENTS AND PLATES - Wording and numbers on control panels, instruments, and plates shall be in the English language, permanently and legibly displayed in bold face characters on a contrasting background.

3.2.15 CONTROLS AND INSTRUMENTATION - All operator controls, instrumentation and indicators shall be mounted to be convenient to operating personnel. All such devices shall be clearly and legibly marked for function and identification. Each control shall be fitted with suitable handles, pushbuttons, or control knobs, as applicable. Gauges and instruments shall be designed to allow periodic recalibration.

3.2.16 WORKMANSHIP - Workmanship of the equipment to be furnished shall be commensurate with the requirements of this specification and of such quality which denotes the performance of skilled and experienced personnel trained in the field of work performed.

3.3 OPERATING ENVIRONMENT- The equipment shall be capable of continuous operation throughout a nine-hour work shift in an

atmosphere of up to 100°F and 80% relative humidity.

#### 3.4 ADDITIONAL REQUIREMENTS

3.4.1 METER, TIME TOTALIZING- The equipment shall be fitted with a meter(s) to measure operating time of the intensifier pump assembly. The meter shall be of the nonresetting type and shall have a range of 0 to 100,000 hours in increments of 1 hour. The meter shall be designed to prevent the entrance of dust and moisture and shall be mounted to withstand shock and vibration generated by the equipment.

3.4.2 CAUTION - WARNING PLATES - Corrosion resistant "CAUTION" or "WARNING" plates shall be securely attached to the equipment in prominent locations with any safety precautions to be observed by the operator or maintenance personnel permanently marked on the plates.

3.4.3 TECHNICAL DATA- Repair manuals, drawings, parts lists, electrical and hydraulic schematics, written in the English language, shall be furnished in accordance with the requirements of the contract.

#### 3.5 INSTALLATION -

3.5.1 RESPONSIBILITY FOR INSTALLATION - Installation shall be the responsibility of the contractor.

3.5.2 INSTALLATION - Installation shall include all material and labor required to install and make operational all equipment and systems described herein.

3.5.2.1 INSTALLATION COORDINATION - The contractor shall coordinate the proposed installation schedule with the receiving activity within 90 days after award of contract. The installation schedule shall be subject to approval of the receiving activity. Approval of installation schedule shall not relieve the contractor of any responsibility for performance.

3.5.2.2 UTILITIES - The receiving activity will provide access to the utilities listed in 3.8.1

3.6 VERIFICATION OF INSTALLATION - Upon completion of the installation, a contractor representative shall demonstrate the operation and performance of the equipment. Contractor representatives(s) must be United States citizens.

#### 3.7 TRAINING

3.7.1 ON-SITE TRAINING - Within 20 days of installation the contractor shall provide a representative for on-site training of Government personnel to operate and maintain the equipment. The training period shall not be more than three consecutive eight hour work days or less than two consecutive eight hour work days.

### 3.8 UTILITIES

3.8.1 UTILITIES AVAILABLE - The equipment shall be designed and constructed to be complete for operation on the following available utilities

ELECTRIC	- 240 Volts, 3 Phase, 60 Hertz, 130 Amps
COMPRESSED AIR	- 80 PSI 100 CFM Regulated
WATER	- 60 PSI 10 GPM

3.9 COMPONENTS - The equipment shall consist of, but isn't limited to the following described principal components, and shall include all necessary piping, fittings, connectors, hoses, valves, brackets, clamps and any other devices necessary to meet the operational and performance requirements specified herein.

3.9.1 GANTRY ASSEMBLY - The overhead gantry assembly shall be of steel construction with sufficient strength and rigidity to ensure proper performance as specified herein. The assembly shall include independent X, Y, Z, B and C controlled axis motion over the entire work surface for one water cutting assembly. The coordinated traverse and longitudinal movements shall be provided with precision lead screws and linear bearing rails. Ways shall be enclosed to seal out moisture, dust and abrasive material.

3.9.2 CUTTING ASSEMBLY - The cutting assembly shall be designed for vertical or angular cutting within the capacities listed in Table I. All movement and positioning shall be accomplished by using a motorized system.

**TABLE I**  
**CUTTING TABLE SIZES AND CAPACITIES**

X CUTTING DISTANCE	72 INCHES MINIMUM
Y CUTTING DISTANCE	96 INCHES MINIMUM
Z CUTTING DEPTH	24 INCHES MINIMUM
B AXIS ROTATION	180° (+ 90° FROM VERTICAL)
C AXIS ROTATION	360° MINIMUM
CUTTING SPEEDS	
X AXIS	0.10 to 450 IPM
Y AXIS	0.10 to 450 IPM
Z AXIS	0.10 to 450 IPM
B AXIS	90°/SEC
C AXIS	90°/SEC
RAPID TRAVERSE SPEEDS	
X AXIS	900 IPM
Y AXIS	900 IPM
Z AXIS	450 IPM
POSITIONING ACCURACY	
X, Y, Z AXES	±.005 INCH
B, C AXES	± .50°
REPEATABILITY	
X, Y, Z AXES	±.003"
B, C AXES	± .25°

3.9.3 CUTTING TABLE AND TANK- A workpiece support table shall be provided to accommodate a part size 6 inches larger in each direction than the full "X" and "Y" cutting travel specified. The support surface shall be equipped with a sacrificial stainless steel honeycomb grid pattern spaced no greater than one-half inch in either the X or Y direction. The support shall be replaceable. The effluent tank below the work surface shall be designed to contain all the effluent material. The energy of the cutting jet stream shall be absorbed in a manner which absorbs the kinetic energy of the cutting jet stream.

3.9.5 INTENSIFIER - A double-acting, mechanically shifted intensifier with a high-pressure attenuator shall be provided within a single frame. The intensifier shall be powered by a 25 horsepower or greater electric motor.

The attenuator shall be designed for a minimum continuous operating (dynamic) pressure under production conditions of 55,000 psi. Automatic shutdown for low hydraulic oil level, high hydraulic oil temperature or low inlet water pressure shall be provided. Positive over-pressurization protection shall be accomplished through the use of redundant hydraulic pressure safety relief valves. Rupture disks shall not be used for positive overpressurization protection. Pressure shall not increase more than 5% in the event of intended or accidental dead head condition. Pumps must be able to operate over the specified pressure range with an orifice diameter size up to and including 0.010". Pump flow rate shall be 0.51 gallon per minute at 55,000 psi. Hydraulic oil cooling shall be accomplished by a closed loop heat exchanger system. Hydraulic oil pressure shall not exceed 2750 psi. A slow start system shall allow the unit to be preset to the desired operating water pressure and when started will automatically, slowly increase water pressure to this preset amount. Intensifier shall operate on a minimum inlet water pressure of 60 psi. All exposed high pressure water lines must be shielded. An automatic bleed down feature shall be provided to eliminate pressure when the unit is turned off.

3.9.6 WATER FILTRATION SYSTEM - A water filtration system shall be provided to supply the intensifier with filtered water. The filter system shall consist of two or more filters connected in series, and shall remove all contaminants larger than 0.5 micron. The filter elements are to be replaceable (throwaway) cartridge type. Pressure gages and shutoff valves are to be provided at the inlet and outlet of the filter bank to measure the pressure drop across the filters.

3.9.7 CONTROL SYSTEM - The waterjet system shall be provided with a complete and functional Allen-Bradley 9/260 computerized numerical control (CNC) unit and programming station with all hardware and software necessary to meet or exceed the operational and programming requirements specified herein. The programming station shall have 192 Kb file memory. The programming station shall provide all necessary operator controls and emergency stop.

All text displayed on the operator's CRT display shall be readable in the English language.

3.9.8 CAD/CAM SOFTWARE. The system shall be supplied with CAD/CAM software that provides full 3-dimensional and surface design capabilities. The post processor must generate Numerical Control (NC) files from the CAD images to operate the waterjet cutting system. NC Files shall contain all machine control codes necessary for cutting head motion, turning cutting stream on at start of contour and off at end of contour, and effluent tank pump control. The CAD/CAM software shall operate in Windows 95 on a Gateway 233 MHz Pentium II processor with 32Mb RAM, 6.3 Gb hard drive, SMC PCI twisted pair/BNC Ethernet adapter, 9-pin female serial port. As a minimum, the software shall be capable of the following operations:

- full 3-dimensional design and surface capabilities
- bi-directional file transmission between computer and Allen-Bradley control
- export and import files to/from other CAD software packages, including as a minimum, DXF, CDL and IGES formats
- clean up function to remove redundant geometry
- cutter compensation
- display user-defined real time tool picture onto a tool path
- convert tool path to geometry
- change tool path attributes
- resequence the order of existing tool paths
- build coons, lofted, swept, ruled surface, surface of revolution, cross section, top & cross and filleted surfaces from geometry
- offset surface by a specified amount and create a new surface
- trim or project a surface or tool path
- check multiple tool paths against a surface for interference
- create a tool path along the intersection of two surfaces or along the edge of a surface
- modify the starting point and direction of any defined surface
- create a tool path on a single surface or on multiple surfaces simultaneously
- 5-axis capability including project, surface, side cut surface, user vectored, create vectors, tilt vectors, drill holes, laser/waterjet, rotary tables and mill/router

3.9.9 TRANSMISSION LINE. A hardwire line from the CAD/CAM computer to the waterjet's CNC control system shall be installed to allow bi-directional NC file transmission. The line can be Ethernet or serial, and all hardware and software necessary to complete the connection shall be provided. The computer is located approximately 60 feet from the waterjet, but actual cable length may be as much as 150 feet. Cable shall be shielded or fully contained in metal conduit to eliminate interference and line noise.

#### 4. PROCUREMENT QUALITY ASSURANCE, INSPECTION, AND ACCEPTANCE



4.1 PROCUREMENT QUALITY ASSURANCE - Procurement Quality Assurance shall consist of the examination and tests at destination and ability of the equipment to perform.

4.1.1 ACCEPTANCE AT DESTINATION - Final acceptance of the equipment furnished shall be made at destination by the receiving Officer within 30 days after completion of examination and tests. Cognizant personnel of the receiving activity will review the installation and performance for possible signs of improper performance, malfunction and potential unreliability. The fit of parts shall be observed with particular reference to the interchangeability of such as are likely to require replacement.

4.2 TEST AT ORIGIN - Tests may be performed at origin at the option of the contractor, but final acceptance will be determined by tests at destination.

4.3 TEST AT DESTINATION

4.3.1 OPERATIONAL TEST - The equipment shall be operated in a manner and for a time frame suitable to properly demonstrate and verify the successful operation of the equipment and all of its component parts, relative to the design, construction and performance criteria established under paragraph 3, herein.

5. PREPARATION FOR DELIVERY - The equipment shall be prepared for shipment in accordance with the provisions identified herein.

5.1 PRESERVATION-PACKAGING AND PACKING - Materials and equipment shall be packed for shipment in such a manner that will insure acceptance by common carrier and safe delivery at destination. Containers and closures shall comply with the Interstate Commerce Commission regulations, Uniform Freight Classification Rules or regulations of other carriers as applicable to the mode of transportation.

5.2 SPARE PARTS - Spare parts shall be preserved, individually packaged and marked for bin-type storage for shipment with the equipment. Each individually packaged item shall be positively identified with the original basic equipment to avoid opening for inspection.